

L 6312-66 EWT(1)/EWT(m)/EWP(1)/EWP(b)/T/EWP(6) IJP(c) WH

ACC NR.	AP5026105	SOURCE CODE:	UR/0386/65/002/005/0246/0250
AUTHOR:	Mash, D. I.; Morozov, V. V.; Starunov, V. S.; Tizanov, Ya. V.; Fabelinskij, I. L.	44, 55	44, 55
ORG:	Physics Institute im. P. N. Lebedev, Academy of Sciences, SSSR (Fizicheskiy institut Akademii nauk SSSR)	44, 55	77
TITLE:	Stimulated Brillouin scattering in solid amorphous bodies and liquids	B	
SOURCE:	Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 5, 1965, 246-250		
TOPIC TAGS:	Brillouin scattering, stimulated scattering, stimulated Brillouin scattering, laser, laser effect, nonlinear effect, <u>nonlinear optics</u>	2, 44, 55	
ABSTRACT:	Stimulated Brillouin scattering was observed in three kinds of optical glasses, fused quartz and seven different liquids excited by a giant pulse from a 100 Mr ruby laser using a setup described previously (Mash, D. I., et al. Pis'ma ZhTF, 2, 41, 1965). Table 1 lists some of the experimental data on the Brillouin shifts Δv , the hypersonic acoustic velocity v calculated from the present experimental data on Δv , v determined from ordinary (spontaneous) Brillouin shifts, and v obtained from direct hypersonic measurements. The systematic differences between the hypersonic acoustic velocities calculated from the spontaneous Brillouin shifts and those obtained from stimulated Brillouin scattering were within the limits of		
Card	1/3		

L 6357-66

ACC NR: AP5026105

Table 1. Hypersonic acoustic velocities

Material	Stimulated Raman Scattering		Spontaneous Raman Scatt.	Hypersonic Measurements
	$\Delta\lambda, \text{Å}$	$v, \text{km/sec}$		
Polished quartz	0.031±0.004	3004 ₂ 30	3000	3000
Crown glass	0.036±0.003	3004 ₂ 40	-	-
Borosil.	0.204±0.002	1434 ₂ 15	1474	1430
Mitrothorax	0.223±0.002	1344 ₂ 15	-	1473
Carbon disulfide	0.151±0.002	1162 ₂ 15	1203 ₂ 22	1138
Acetic acid	0.105±0.002	1305 ₂ 20	1304 ₂ 25	1304
Sulal. 20C	0.220±0.002	1344 ₂ 15	-	-
180C	0.204±0.002	1304 ₂ 20	-	-

*The upper value is given for the case when 10 components were observed; the lower value, when 2 components were observed.

CONT'D 2/2

L 6157-46

ACC 104 APPENDIX 105

experimental error for all materials tested except carbon disulfide. The hypersonic velocity of carbon disulfide decreased with an increasing number of Brillouin components and increased with an increasing power of the pulses. The dependence of velocity on the number of components was attributed to heating of the scattering medium due to absorption of hypersound. It is possible that a small decrease in hypersonic velocity also occurred in other materials. Such a decrease would limit the accuracy with which the hypersonic velocity could be determined by means of stimulated Brillouin scattering. The 12% dispersion observed in nitrobenzene at 200°C made it possible to evaluate its main relaxation parameters. Orig. art. has: 2 figures and 1 table.

200 CARS; 00/ 2000 MARS; 1070169/ OMEG REV: 004/ CTR REV: 01D/ ADD PAGES: 474/

L 10646-66 FBD/ENT(1)/ENP(e)/ENT(m)/EEC(k)-2/T/END(k)/EWA(m)-2/EWA(h) SCTB/IJP(c)
ACC-NR. AP6002662 MG/MH SOURCE CODE: UR/0386/65/002/012/0562/6364

AUTHOR: Shchepetilnikov, B. I.; Mitrofanov, V. V.; Starunov, V. S.; Pobelinitskiy, I. L.

ORG: Fizicheskiy Institut im. P. N. Lebedeva, Academy of Sciences USSR
Institut Akademii Nauk SSSR

TITLE: Stimulated Brillouin scattering in gas

SOURCE: Zurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.
Prilocheniya, v. 2, no. 12, 1965, 562-566, and insert facing page 584

TOPIC TAGS: laser, gaseous laser, nonlinear optics, Brillouin scattering

ABSTRACT: The authors report observing stimulated Brillouin scattering in hydrogen at a pressure of 95 atm, in nitrogen at 100 and 125 atm, and in oxygen at 75, 100, and 150 atm using an experimental setup described in Zurnal eksperimental'noy i teoreticheskoy fiziki, Pis'ma v redaktsiyu, v. 2, no. 1, 1965, p. 41. The focused output of the Q-switched laser was 250 mJ. Four Stokes components were observed in nitrogen, four Stokes components and one faint anti-Stokes component were observed in oxygen, and two Stokes components were observed in hydrogen. The hypersound velocities determined from the experimental data are listed in Table 1, together with the adiabatic and isothermal velocities and certain parameters of the medium and experimental conditions. Stimulated Brillouin scattering was not observed in

Card 1/3

L 10640-66

ACC NR: AP6002662

Table 1.

	P_0 , atm	α	$f_1 \cdot 10^{-3}$	$A_{10} \cdot 10^5$, cm	$\omega \cdot 10^3$	Experimental data		$V_{\text{wind}}/V_{\text{isothermal}}$	$V_{\text{wind}}/V_{\text{isothermal}}$
						$\Delta V \cdot 10^2$	Hypersonic velocity cm (msec)		
N_2	125	1.000	0.04	3.0	0.05	2.8, 0.1	200, 10	362	297
O_2	150	1.000	0.19	3.0	0.05	3.2, 0.3	300, 10	371	300
H_2	15	1.012	3.3	3.4	0.14	11, 1	1100, 100	1334	1127
H_2	100	1.005	2.5	3.0	1.7	-	-	1000	763

 ω is the wavelength of hypersonic a_1 is the amplitude coefficient for sound absorption

Card 2/3

L 10646-66

ACC NR: AP6002662

helium even at a pressure of 140 atm. The experimental data are interpreted in terms
of the classical theory developed earlier by one of the authors (Fabelinskiy). Orig.
art. has: 1 figure and 1 table. [CS]

SUB CODE: 20 / SUMM DATE: 09Nov65/ ORIG REF: 004/ OTH REF: 003/
ATD PRESS: 4169

HW

Card 3/3

1-26607-65 / ENG(1)/EWA(3)/TBD/EMI(G3)/CWE(4)/CWE(5)/MTC(1)-2/RPE(1)2/ERK/ERG(1)/
P/CMP(1)/TBD(1)-2/EWP(1-5)/EWP(6)/CWE(4)-2/EMI(B) / [REDACTED]/Po-1/PC-1/ER-1/Po-1/Po-1/
PE-1/AT-1/B65/EMI(C)/CWE(1-4)/[REDACTED] 6/01109/65/010/002/0376/031177
ADDRESSEES: [REDACTED]

AUTHOR: A. M. MEL'CHIKOV, V. V. MUSATOV, D. P. TITOV

TITLE: Operating conditions of a helium-xenon laser in the middle infrared region
of the spectrum

SOURCE: Radiotekhnika i elektronika, v. 10, no. 2, 1965, 376-377

TOPIC INDEX: Laser, helium-xenon laser, laser radiation spectrum, laser detector, IR-laser

ABSTRACT: Investigations in the middle infrared region of the spectrum were made on a He-Xe laser fitted with two external mirrors and a spherical GaAs detector on a silver-coated mirror. Mirror curvature radii and spacing between mirrors, spherical silver-coated mirror. Mirror curvature radii and spacing between mirrors were 30 cm; discharge tube length was 280 cm, and tube diameter was 15 mm. The discharge voltage of the high-frequency oscillator ranged at 30 Mc. Gold-alloyed Ge served as the cathode. At a ratio of He and Ar partial pressures of 200/1, nine generation lines corresponding to 70-800 nm distinctions were obtained. (See Table I of Enclosure 1.) The highest generation was observed in the 1.5070- and 1.5736- μ lines; the lowest - in the 3.1062- and 7.9111- μ lines. The intensities of 5.5736- μ lines, the lowest, in the 3.1062- and 7.9111- μ lines. The intensities of the 3.5070-, 5.5736-, 7.9111-, 1.0055-, and 2.0010- μ lines were in the ratio 101/80/27/40/37/30 m.e.u. (See figure and Table I.) [DW]

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

DP2027765
ACCESSION NR: AR5005-59

ASSOCIATION - U.S. Foreign Institute in P. M. Lebedev AM SSSR (Physics Institute, AM SSSR)

SUBMITTED: 1970

ENCLOSURE: 01

SUR CODE: EO-0

NO REC EO1: 002

OTHER: 001

ATT PRESE: 3188

Card: 2/3

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1"

ENCLOSURE 10

Level	Transition	Level	Transition
1051	$5d(5/2)^0 \rightarrow 6p(1/2)^0$	1903	$5d(3/2)^0 \rightarrow 6p(1/2)^0$
1060	$5d(5/2)^0 \rightarrow 6p(3/2)^0$	57738	$5d(7/2)^0 \rightarrow 6p(5/2)^0$
3306	$5d(5/2)^0 \rightarrow 6p(3/2)^0$	13147	$5d(3/2)^0 \rightarrow 6p(3/2)^0$
35070	$5d(7/2)^0 \rightarrow 6p(5/2)^0$	0.000	$5d(3/2)^0 \rightarrow 6p(3/2)^0$
35040	$5d(5/2)^0 \rightarrow 6p(3/2)^0$		

Table 1 - Linear of generation and corresponding
transitions

Cord 3/2

48095-65 EWA(P)/EBO/ENG(S)/EMT(L)/EMT(M)/EPB(C)/EPCLC-2/EPE(G)-2/EPR/EEC(T)/T/EMP(T)/
EEC(T)-2/EPE(K)/EMP(D)/EWA(M)-2/EMK(H) Pn-4/Pn-4/Pn-4/Pn-4/Pn-4/Pn-4/Pn-4/Pn-4
ACCESSION NR: AF-01261 UR/0051/65/018/005/0866/0869

AUTHOR: M. I. Kogelnik, J. R. Polovin, V. K. Karpov, L. N.

TITLE: Kinematical investigation of the beam divergence of a neon-helium laser

SOURCE: Optika i Spektroskopija, v. 15, no. 7, 1967, 866-869

TOPIC TAGS: laser, neon laser, helium laser, neon helium laser, laser beam divergence

ABSTRACT: The beam divergence angle was measured for various modes and mirror combinations. The results were compared with values calculated by formulae given by Boyd and Gordon (Bell System Technical J., 40, 1961, 409) and Boyd and Kogelnik (Bell System Technical J., 1962, 1, 47). The angle of divergence in a confocal system comprising mirrors with a radius of curvature of 114 cm for the TEM₀₀ mode was calculated to be 2.2° after the introduction of a correction for the refraction within the quartz substrate (refractive index = 1.45), while the measured divergence was found to be 1.7°. The analogous figures for the TEM₀₀ mode in a nonconfocal system with a mirror radius of curvature of 2 m and distance between them of 1 m, were 2.65° (calculated) and 1.7° (measured). The measurement results for other modes in confocal and nonconfocal systems are given in a table. Further measurements were conducted with mirrors of slightly different curvature (1850 and 1877 mm) to establish

1-4800-6
ACCESSION NR. AF-5012615

In the dependence of the full mode beam divergence on the distance between the mirrors, a sharp increase of divergence was observed at mirror distances close to the curvature radius of one of the mirrors. Different mode images at both ends of the resonator were localized at a distance value between the curvature values of the larger mirrors. The mode images at mirror distances below the smaller and above the larger curvatures were identical at both ends and displayed minima of the divergence angle at one of the other end of the resonator. At the mirror with larger curvature the minimum divergence appeared at a distance greater than its curvature, and at a distance smaller than the curvature of the opposite end. The nature of these minima remained obscure. In the case of a combination of a plane and a spherical mirror remained obscure. In the case of a combination of a plane and a spherical mirror (2 m curvature radius) at opposite ends, a slowly decreasing divergence of a multiple (2 m curvature radius) at opposite ends, a slowly decreasing divergence from 00 to 150 cm. At the spherical mirror of a 5 mm tube, the divergence started at 10.5° and decreased to 0.7° at 140 cm. At the plane end, the divergences were 7.5° and 7.0° respectively. For the TEM₀₁₀ mode, the divergence started between 3 and 4°, showed a flat minimum at about 105 cm, and increased slowly to about 4° at 140 cm. Orig. art. has 4 figures and 5 formulas [PP]

ASSOCIATION - none

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

0-48093-00
ACCESSION NUMBER: AE5012615
SUBMITTED BY: 164-64
REF ID: 00000000000000000000000000000000
RC KEY: SOV15 000

ENCL: 00

SUB CODE: SC

ATTD. PRESS: 4002

MD
Card 1/2

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1"

L 13271-66 EWT(1)/EWT(m)/EBC(k)-2/EWP(j)/T/EWP(k)/EWA(m)-2 IJP(c) WG/F1
ACC N^o: AP6002715 SOURCE CODE: UR/0056/65/049/006/1764/1773

AUTHOR: Mash, D. I.; Starunov, V. S.; Tumusov, Ye. V.; Pobelinskij, I. L. 16

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy Institut Akademii nauk SSSR)

TITLE: The intensity and width of the Brillouin components in liquids and the damping of hypersound

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 6, 1965,
1764-1773

TOPIC TAGS: hypersound, scattering, Rayleigh scattering, Brillouin scattering, flow, 3rd order, irreversible thermodynamics, laser, hypersound flow

ABSTRACT: An expression is derived for the relaxation time of bulk viscosity on the basis of the hydrodynamic and relaxation theories for sound propagation in a liquid. This makes it possible to determine the relaxation time from measurements of sound absorption and sound dispersion and to check the validity of the simplest relaxation theory with one relaxation time. In the experiments conducted, an He-Ne laser was used to investigate the spontaneous Brillouin scattering in the following liquids: CaH_2 , CCl_4 , CHCl_3 , CaHgCl_3 , and CH_2Cl_2 . The hypersound velocity in these liquids at a frequency of 4×10^9 cps was determined from the distances between the peaks of the Brillouin components, while the coefficient of absorption was determined from their

Card 1/2

L 13271-66

ACC NR: AP6002715

linewidths. The experimental data for some liquids agreed with the results of the relaxation theory involving one relaxation time. The relative intensities of the Brillouin components were measured and compared with theoretical data. Orig. art. has: 10 formulas, 4 tables, and 5 figures. [cs]

SUB CODE: 20/ SUBM DATE: 21Jul65/ ORIG REF: 012/ OTH REF: 012/ ADD PRESS: 4/8

Card 20

L 24204-66 EWT(1)/EWP(•)/EWT(=)/T/EWP(t) IJP(c) JD/WH
ACC NR: AP6014615 SOURCE CODE: UR/0386/66/J03/009/0378/0382

AUTHOR: Krivokhizha, S. V.; Mash, D. I.; Morozov, V. V.; Starunov, V. S.;
Pabelinskiy, I. L.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy
institut Akademii nauk SSSR)

TITLE: Induced Mandel'shtam-Brillouin scattering in single-crystal quartz at tem-
peratures 2.1-300K

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu.
Prilozheniya, v. 3, no. 9, 1966, 378-382

TOPIC TAGS: quartz, single crystal, light scattering, laser application, line shift

ABSTRACT: The following effects were observed in induced Mandel'shtam-Brillouin scattering (IMBS) in single-crystal quartz: a strong increase in the shift of the Stokes component, due to the quasilogitudinal hypersonic wave, as the temperature was lowered from 80 to 2.1K; occurrence of a Stokes component of IMBS due to the quasitransverse wave at 80K and a difference in the character of the damage to the single crystal in the focused laser beams at different temperatures and for practically constant light-pulse power. The investigation was made with a previously-described installation (Pis'ma ZhTF v. 2, 41, 1965). The giant light pulse from a ruby laser, of ~250 MW power, was focused onto the interior of the crystal sample, which was either at room temperature or placed in a cryostat filled with liquid helium or liquid nitrogen. All crystal samples were cut from a single block of

Card 1/2

L 24204-66

ACC NR: AP6014615

5

Brazilian quartz. The frequency shifts $\Delta\nu$ of the Stokes components are tabulated. It is shown that $\Delta\nu$ doubles in the temperature interval 80--4K and continues to increase with decreasing temperature. To explain the observed large increase in the frequency it must be assumed that under the conditions of the experiment the refractive index and the speed of the hypersound change noticeably under the influence of the strong electric field of the light wave at low temperature. An analysis shows that the influence of the electric field on the refractive index and the speed of the hypersound are apparently not the only causes of the observed appreciable increase of $\Delta\nu$ at low temperature. The observed strong difference in the outward appearance of the damage in the single crystal of quartz at different temperatures is attributed to the fact that at 80K the absorption of the hypersound is somewhat smaller than at 300K, and this decrease is apparently sufficient to produce under certain conditions DNGS without damaging the crystal. When the temperature is lowered to 4.2K, the absorption coefficient becomes even smaller, and usually no damage occurs. If damage is still observed in this case, it can be attributed to the strong narrowing of the light channel, and consequently the increase in the intensity of the light and hypersound. The authors thank I. V. Kaldysh and Yu. P. Boyer for useful remarks made during the discussion of the results, and to O. I. Vol'kova, M. A. Vyrotakova, and V. P. Zaytsev for help with the work. Orig. art. has: 1 formula and 1 table. [02]

SUB CODE: 20/ SUBS DATE: 1966/ ORIG REF: 007/ OTH REF: 005/ ATD PHRSE
4245

Card 2/2 8LG

ACC NR: AP7002677

SOURCE CODE: UR/0109/67/012/001/0150/0153

AUTHOR: Kuznetsov, A.A.; Mash, D.I.; Skuratova, N.V.

ORG: none

TITLE: Effect of an axial magnetic field on the output power of a neon-helium laser simultaneously generating the 3.39 and 0.6328 μ lines

SOURCE: Radiotekhnika i elektronika, v. 12, no. 1, 1967, 150-153

TOPIC TAGS: gas laser, laser energy, neon, helium, laser pumping, axial magnetic field

ABSTRACT:

The effects of an axial d-c magnetic field on the power output of helium-neon lasers operating at $\lambda = 6328$ and 33,900 Å were examined. The laser used a 160-cm-long quartz tube (inside diameter, 8 mm) filled with a helium-neon mixture and terminating in quartz windows placed at the Brewster angle with respect to the tube axis. Excitation was established with a high-frequency generator. The longitudinal d-c magnetic field was generated by four 23-cm-long coils (18,900 turns in each coil), spaced regularly along the laser tube. Output power of the $\lambda = 6328$ Å radiation was determined by measuring the current generated in an FSK-1 photocell, and the power of the $\lambda = 33,900$ Å

Card 1/2

UDC: 621.373.029.67.001.5

ACC NR: AP7002677

radiation was established with a PbS detector. The dependence of the output power on the pressure of the $\lambda = 6328 \text{ \AA}$ radiation was found, and for each value of pressure the optimal pumping power was determined. The above procedure was repeated in the presence of a magnetic field; the pumping power and the coil current, for all pressures, were chosen to give maximum radiated power for $\lambda = 6328 \text{ \AA}$. The maximum radiated power for $\lambda = 6328 \text{ \AA}$ increased by a factor of 1.5 after the magnetic field was applied. The optimal pressure (for peak output power) in the presence of the magnetic field was somewhat greater than the pressure with no magnetic field, and the working pressure range is somewhat greater in the presence of the magnetic field. Changes in output power caused by variations in the magnetic field were studied for both wavelengths, and at optimal pressures for the $\lambda = 6328 \text{ \AA}$ radiation. The output power for $\lambda = 6328 \text{ \AA}$ increases and then decreases, whereas that for $\lambda = 33,900 \text{ \AA}$ decreases as the magnetic field increases until oscillation ceases.

[IV]

SUB CODE: 20 / SUBM DATE: 06May66 / OTH REF: 003 / ATD PRESS: 5114

Card 2/2

45567
S/119/63/000/001/006/016
D201/U308

9.7.50

AUTHORS:

Mash, D.M., Pruss, K.V. and Sorokiti, A.N.

TITLE:

Contactless position pick-up

PERIODICAL:

Priborostroyeniye, no. 1, 1963, 16

TEXT: This is a description of the position pick-up type Δ-3 (D-3) designed by VNIIStroydormash with a view to eliminating the effect of the pick-up on the controlled moving system. The pick-up is basically a transistorized oscillator with two amplifiers. The coupling between the tank and feedback is adjusted, or varied as the case may be, by the insertion of a metal plate with the gap between the ferrite cores of the two coils. This method also makes it possible to vary the start time of generated pulses, the metal plate being connected to the moving controlled system. The minimum width of the metal plate is 3 mm. The components of the pick-up are enclosed in a glass cylinder. The supply is 15 V and max current is 40 mA. Experiments have shown that the pick-up operates satisfactorily with supply variations up to ± 50% and at ambient tempera-

Card 1/2

S/119/63/000/001/006/016
D201/D308

Contactless position pick-up

tures from - 30 to + 40°C, at pulse repetition frequencies up to 10 kc/s. The great accuracy of the pick-up allows its use for weighing and other linear position measurements and its use as linear and angular position digital transducer. There are 2 figures.

Card 2/2

143913Z MAY 65 (b)-2/PW (2)/T - PI-4 - F/F (0) - CO

ACCESSION NO.: A9506872

5/01/81/001/003/07-7/072

25

24

6

AUTHOR: M. G. I. R. K. N. S. M. L.

TITLE: Approximate cross relaxation and spectrum of exchange-coupled ion pairs
in paramagnetic crystals

SOURCE: PHYS. REV. B, VOL. 1, NO. 3, 1967, 717-721

TYPE: MSG. Cross relaxation, exchange coupling, paramagnetic crystal, nuclear magnetic resonance, electron paramagnetic resonance, spin-spin temperature

ABSTRACT: Results of cross relaxation are analyzed with account of the possibility of changing the spin-spin temperature, which was demonstrated first by H. M. Przyborowski (ZAMP v. 12, p. 882, 1962). By analyzing the equations of "pure" cross relaxation (neglecting relaxation in the lattice), it is shown that the tendency to equilibration of the temperatures of the interacting transitions appears only if these transitions are close to being equivalent or of integer multiplicity; in all other cases the cross relaxation is manifest only in a strong change in the spin-spin temperature. An experimental confirmation is found from recent NMR experiments with LiF (Jessen et al., Phys. Rev. 133, A 476,

Card 1/2

1964/5

ACCESSTION NO.: A900000

1964/5 An analysis of the spin exchange in paramagnetic crystals also leads to the hypothesis that the pairs coupled by exchange interaction make a contribution to cross relaxation. A numerical calculation (without the use of perturbation theory) is made of the energy spectrum of such pairs for two in a magnetic field parallel to the crystal axis. One arc has 1 figure and 2 tables.

ASSOCIATION INSTITUTE OF APPLIED ELECTRONICS AM SSSR, MOSCOW (Institute of Radio Engineering and Electronics AM SSSR)

SUBJ CODE: 22-66

RECL: 00

ISS CODE: MF/00

REF ID: 901-000

OFFICE: 002

MASH, R.D., uchitel'.

Demonstration experiments illustrating I.P.Pavlov's theory of conditioned reflexes. Est.v shkole no.6:70-79 '53. (MLRA 6:10)

1. Srednyaya shkola no.1 g. Gus'-Khrustal'nyy Vladimirsckoy oblasti.
(Conditioned response)

MASH, R.D., uchitel'.

Experiments in the study of conditioned reflexes. Biol. v shkole
no.3:44-50 My-Je '57. (MLRA 10:6)

1. Shkola No.516 g. Moskvy.
(Physiology--Study and teaching) (Conditioned response)

MASH, R.D.

Lesson on the topic "Higher nervous activity in man". Biol.
v shkole no.1:34-40 Ja-F '60. (MIRA 13:5)

1. Institut metodov obucheniya Akademii pedagogicheskikh nauk
RSFSR.

(CONDITIONED RESPONSE)

MASH, R.D.; CHEBUNINA, A.N., uchitel'nitsa

Independent work of students in studying the higher nervous activity of animals. Biol. v shkole no.2:30-34 Mr-Apr '61. (MIRA 14:3)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii pedagogicheskikh nauk RSFSR (for Mash). 2. Shkola No.315 go. Moskva (for Chebunina).

(Physiology—Study and teaching)
(Conditioned response)

MEL'NIKOV, M.I.; PADALKO, N.V.; RASH, A.D.

Using the materials of 22d Congress of the CPSU in teaching biology.
Biol. v shkole no.1:12-18 Ja-F '62. (MI.A 15:1)

1. Institut obshchego i politekhnicheskogo obrazovaniya Akademii
pedagogicheskikh nauk RSFSR
(BIOLOGY STUDY AND TEACHING)

MASH, R.D.

"Use of experiments in the propaganda of medical and hygienic knowledge" by N.B.Korestelev. Reviewed by R.D.Mash. Biol.v shkole no.6:91-92 N-D '62. (MIRA 16:2)

1. Institut obshchego i politekhnicheskogo obrazovaniya
Akademii pedagogicheskikh nauk RSFSR.
(Health education) (Korestelev, N.B.)

MASH, V.

Factors of labor productivity in the United States ("Economic factors of productivity." Reviewed by V.Mash). Biul.nauco.inform.; trud i zar.plata no.8:67-72 '59. (MIRA 1,1:1)
(United States--Efficiency, Industrial)

MASH, V.

Calculating time consumed in operations for the control of production quality. Biul.nauch.inform.: trud i nar. plata 3 no.12:65-68 '60.
(MIRA 14:3)

(United States—Quality control)

MASH, V.

Determining time expended per unit of production in the U.S.A.
Sots. trud 5 no.9:94-97 S '60. (MIRA 13:10)
(United States—Production standards)
(Correlation (Statistics))

MASH, V.

Mathematical methods for the optimum distribution of enterprises
in the multistage production and consumption systems.
Vop. ekon. no.10:75-86 0 '62. (MIRA 15:11)
(Economics, Mathematical) (Industries, Location of)

S/0004/44/004/002/0376/0379

ACCESSION NR: AP1024571

AUTHOR: Mash, V. A. (Mashov)

TITLE: Procedure for choosing the introduced variable in the simplex method of linear programming

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 2, 1964, 376-379

TOPIC TAGS: linear programming, simplex method, artificial variable, variable

ABSTRACT: An alternative to the usual method for the elimination of artificial variables is suggested. In the simplex method, if a system of restraints for a general problem in linear programming does not have a diagonal matrix, artificial variables are introduced. The choice of these variables is based on the quickest elimination of them from the tableau. In this way, an admissible tableau is obtained which does not contain the artificial variables. It must then be refined to the optimal. In this method, the elimination of artificial variables by successive refinements is accomplished not by a "very quick" but by a "very

Card 1/2

ACCESSION NR: AP4024571

economical" procedure. The tableau after each iteration is conditionally optimal. The reduction to zero of the values of the artificial variables and the optimal tableau are obtained simultaneously. Orig. art. has: 10 equations.

ASSOCIATION: none

SUBMITTED: 25Sep63

DATE ACQ: 16Apr64

EMCL: 00

SUB CODE: NM

NO REF Sov: 003

OTHER: 003

2/2
Card

L 05230-67 EWT(d)/EWP(1)
ACC NR: AR6017089

SOURCE CODE: UR/0372/65/000/012/V039/V039

AUTHOR: Mash, V. A.

30

B

TITLE: Certain complicated variants of transportation and distribution problems in linear programming

SOURCE: Ref. zh. Kibernetika, Abs. 12V256

REF SOURCE: Sb. Ekon. -matem. metody, Vyp. 2. M., Nauka, 1965, 304-337

TOPIC TAGS: linear programming, industrial production, computer theory, economic geography

ABSTRACT: The author expounds the complex whole of techniques serving to reduce a number of problems of optimal planning to the transportation (or distribution) problem without any additional constraints. If, however, additional constraints are necessary, their number is reduced to a minimum. The following types of problems are considered: a) multistage distribution problem; b) multistage distribution problem with feedback; c) problem of the optimal distribution of enterprises for a "closed" multibranch system; d) combined production problem with discrete variation in parametric modes; e) problem d) for the case of continuous variation

Card 1/2

UDC: 512.25/.26+519.3:330.115

L 05230-67
ACC NR: AR6017089

in parametric modes; f) problem of incomplete combined production; g) problem of optimal geographic distribution of enterprises in the presence of a limited total amount of capital investments; h) problem of optimal scheduling of current shipments of timber in the USSR national economy. Certain findings of machine experiments are presented. Bibliography of 5 titles. Yu. Finkel'shteyn. [Translation of abstract]

SUB CODE: 09, 05, 13/

Card 2/2 9d

AKHUMYAN, K.S.; MASHADYAN, P.N.

Biology of Raillietina (Skrjabinia) circumvallata sibirica
Fedjushin, 1953 (Cestoda), an intestinal parasite of chickens.
Izv. AN Arm. SSR. Biol. nauki 17 no.4:59-68 Ap '64.

(MIRA 17:6)

1. Zoologicheskiy institut AN Armyanskoy SSR.

MASHAGATOV, V.P. (Ishhevsk)

Influence of mud treatments at the Varzi-Yatchi health resort
in the Udmurt A.S.S.R. on the cardiovascular system. Kaz.-med.
zhur. 40 no.2:79-80 Mr-Ap '59. (MIRA 12:11)
(VARZI-YATCHI--BATHS, MOOR AND MUD)
(CARDIOVASCULAR SYSTEM)

ROGOZKIN, V.A.; FEDOROVA, G.P.; MASHANOVY, V.F.

Enzymatic synthesis of nicotinamide dinucleotide in isolated
nuclei of skeletal muscle. Vop. med. khim. 1, no. 5:546-547
(MIRA 18:11)
S-O '64.

1. Nauchno-issledovatel'skiy institut fizicheskoy kultury i
Institut tsitologii AN SSSR, Leningrad.

ROGOZKIN, V.A.; AFAR, Ya.; MASHANOV, V.F.

Enzymatic activity and ultrastructure of mitochondria in muscle hypertrophy. Biokhimiia 29 no.5:905-909 Jl-Ag '64.
(MIRA 18:11)

1. Nauchno-issledovatel'skiy institut fizicheskoy kul'tury
i Institut tsitologii AN SSSR, Leningrad.

MASHANSKIY, V.P.; SEMIKHATOVA, O.A.; BUSHUYEVA, T.M.

Relationship of morphological and biochemical damage symptoms
in mitochondria. Bot. zhur. 50 no.5:639-646 My 165.
(MIRA 18:18)

J. Institut tsitologii AN SSSR, Botanicheskiy institut imeni
Komarova AN SSSR i Gosudarstvennyy universitet imeni Zhdanova,
Leningrad.

KISLYUK, I.M.; MASHANSKIY, V.P.

Ultramicroscopic structure of chloroplasts. Bot. zhur. 50
no.10:1384-1395 O '65. (MIRA 18:12)

1. Botanicheskiy institut imeni Komarova AN SSSR i Institut
tsitologii AN SSSR, Leningrad.

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001032710015-1"

GUBERGRITS, A.Ya., prof.; MASHAGATOV, V.F., kand.med.nauk

Disorders of the cardiovascular system in certain diseases of
the digestive system. Vrach. delo no.8:6-10 Ag '61. (MIRA 15:3)

1. Kafedra gospital'noy terapii (zav. - prof. A.Ya. Gubergrits)
Izhevskogo meditsinskogo instituta i kafedra fakul'tetskoy
terapii Stalinskogo meditsinskogo instituta.
(BLOOD--CIRCULATION, DISORDERS OF)
(DIGESTIVE ORGANS--DISEASES)

MASHAGATOV, V.F., dotsent

Antibiotics in the antibacterial therapy of chronic
infectious diseases of the biliary ducts. Trudy Izhev.gos.
med.inst. 21:103-106 '64.

(MIRA 19:1)

1. Kafedra propedevtiki vnutrennikh bolezney (zav. - dotsent
V.F.Mashagatov) Izhevskogo meditsinskogo instituta.

MASHANOV, A. ZH.

20.573 MASHA (V., A. ZF. Elementarnyye chislitsy strukturnykh form. Izdatel'stvo Nauk. nauk kazakh. SSI, No. 7K, Seriya: Mat., vyp. II, 1949, s. 13-47. - Iazykue na kazakh. yaz.

SC: LECFIS ZHURNAL STATEY - Vol. 28, Moskva - 1949

MASHANOV, A. Zh.

"ON the problem of studying the structure of an Ore Field", Izv. AN Kazakhsk. SSR,
ser. zoolog. [News of the Academy of Sciences of the Kazakh SSR, Geological Series],
Issue 12, 195 .

MASHANOV, A.Zh.

The new theory of the strength of materials (as applied to the
strength of rock masses). Vest. AN Kazakh. SSR 14 no.7:13-27 Jl
'58. (MIRA 11:9)

1.Chlen-korrespondent AN KazSSR.
(Strength of materials) (Rocks)

AA - RNOV, A E

AVROV, P.Ya.; AYTTIYEV, Zh. A.; AUEZOV, M.O.; AKHMMEDSAFIN, V.M.; BATISHCHEV-
PARASOV, S.D.; BAZANOVA, N.U.; BAISHEV, S.B.; BAYKONUROV, A.B.;
BEXTUROV, A.B.; BOGATYREV, A.S.; BOK, I.I.; BORUKAYEV, R.A.; BUTAKOV, E.L.,
N.L.; BYKOVA, N.S.; ZHILINSKIY, G.P.; ZYKOV, D.A.; IVANKIN, R.P.;
KAZANLI, D.N.; KAYUPOV, A.N.; ~~ZENESBAYEV~~, S.K.; KOLOTILIN, N.F.;
KUNAYEV, D.A.; KUSHEV, G.L.; L... , ., .; MASHANOV, O.Zh.; MEDOEV, .,
G.TS.; MOHICH, V.K.; MULANOV, S.; MUSTAFPOV, G.; MUZHATEBETALIEV, S.M.;
PARSHIN, A.V.; POFROVSKIY, S.M.; POLOSUKHIN, A.P.; RUSAKOV, M.P.;
SERGIYEV, N.G.; SHYFULJIN, S.Sh.; TAZHIBAYEV, P.T.; FESENKOV, T.G.;
SHLYGIN, Ye.D.; SHCHERBA, G.N.; CHOKIN, Sh.Ch.; CHOLPANCULOV, T.Ch.

Sixtieth birthday of Academician Kanysh Imentaevich Satpaev. Vest.
AN Kazakh. SSR 15 no.4:58-61 Ap 1991. (MIRA 12:7)
(Satpaev, Kanysh Imentaevich, 1900-)

MASHANOV, A.Zh.; ABDRAKHMANOV, A.; SYDYKOV, Zh.; ASAINOV, M., red.;
ROROKINA, Z.P., tekhn.red.

[Russian-Kazakh terminological dictionary] Russko-kazakhskii
terminologicheskii slovar'. Alma-Ata. Vol.3. [Terminology in
geology] Terminy po geologii. 1960. 200 p. (MIRA 13:4)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut yazyka i
literatury.

(Russian language--Dictionaries--Kazakh)
(Geology--Dictionaries)

TULAYEV, I.I.; MASHANOV, A.Zh.

Bed position meter. Sbor. nauch. trud. Kaz GMI no.19:217 '60.
(MIRA 15:3)

1. Chlen-korrespondent AN Kazakhskoy SSR (for Mashanov).
(Mining geology) (Measuring instruments)

MASHANOV, Akzhan Zhaksybekovich; KUZNETSOV, Yu.N., red.; GASHINA, Ye.A.,
tekhn. red.; ALPEROVA, P.F., tekhn. red.

[Mechanics of rocks] Mekhanika massiva gornykh porod. Alma-Ata,
Izd-vo Akad. nauk Kazakhskoi SSR, 1961. 208 p. (MIRA 14:10)
(Geology, Structural)

MASHANOV, A.

"Aristotle of the East." ИМ.tekh. 7 no.8:57-59 Ag '63.
(MIRA 16:10)

1. Chlen-korrespondent AII Kazakhskoy SSR.

MASHANOV, V.I.

High-yield varieties of the oil-bearing rose. Masl.-zhir.prom.
26 no.9:31-32 S '60. (MIRA 13:8)

1. Zuyiskiy efironaslichnyy gossoortouchastok.
(Crimea--Roses--Varieties)

MASHANOV, V.I.

Differential geometry of minimal surfaces in Lobachevskii space. Trudy
TGU 160:131-137 '62.

Theory of congruences of lines in Lobachevskii space. Ibid.:138-146
(MIRA 17:1)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

MACHANOV, V.I.

Ruled surfaces of the congruence of straight lines of a space of
constant curvature. Sib. mat. zhurn. 6 no.1.149-164 Jan-F '65.
(NIRAI 18:4)

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1"

MASHANOVA, G.A.

Syndrome of Parkinsonism in patients with cerebral atherosclerosis.
Trudy Gos. nauchno-issl. inst. psich. 22:189-200 '60. (MLIA 15:1)

1. Klinika sosudistykh psikhozov (zav. - prof. V.M. Banshchikov)
Gosudarstvennogo nauchno-issledovatel'skogo instituta psichiatrii
Ministerstva zdravookhraneniya RSFSR.
(PARALYSIS AGITANS) (CEREBRAL ARTERIOSCLEROSIS)

SAVCHUK, V.I., kand.med.nauk; MASHANOVA, G.A.

Disturbances in the conditioned reflex activity in patients with cerebral atherosclerosis with mental changes. Trudy Gos. nauchno-issl. inst. psikh. 22:287-302 '60. (MI: A 15:1)

1. Laboratoriya patofiziologii vysshey nervoy deyatel'nosti (zav. - laboratoriye - prof. Yu.M.Uspenskiy) i klinika sosudistykh psikhozov (zav. klinikoy - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psichiatrii Ministerstva zdravookhraneniya RSFSR.
(CONDITIONED RESPONSE) (CEREBRAL ARTERIOSCLEROSIS)
(MENTAL ILLNESS)

KAZAKOVA, P.B., kand.med.nauk; MASHANOVA, G.A., mladshiy nauchnyy sotrudnik

Differential diagnosis of atherosclerotic parkinsonism and paralysis agitans; the clinical aspects and pathomorphology. Trudy Gos.nauch-issel.inst.psikh. 25:278-314 '61. (MIRA 15:12)

1. Klinika sosudistykh psikhozov (zav. - prof. V.M.Banshchikov) i otdeleniye patomorfologii tsentral'noy nervnoy sistemy (zav. otdeleniyem - kand.med.nauk A.P.Levkovich-Sokolova) Gosudarstvennogo nauchno-issledovatel'skogo instituta psihiatrii Ministerstva zdravookhraneniya RSFSR.
(CEREBRAL ARTERIOSCLEROSIS)(PARALYSIS AGITANS)

MASHANOVA, V.A.; UMAKULOV, A.U., aspirant

Differential diagnosis of syphilitic and atherosclerotic
parkinsonism. Trudy Gos.nauch-issl.inst.psikh. 25:157-168
'61. (MIRA 15:12)

1. Klinika sosudistyh psikhozov (zav. - prof. V.M.Banshchikov)
Gosudarstvennogo nauchno-issledovatel'skogo instituta psichiatrii
Ministerstva zdravookhraneniya RSFSR i klinika nervnykh bolezney
I Moskovskogo meditsinskogo instituta (ispolnyayushchiy
obyazannosti zaveduyushchego klinikoy - dotsent A.S.Mel'nikov).
(PARALYSIS AGITANS) (CEREPRAL ARTERIOSCLEROSIS)(BRAIN-SYPHILIS)

MASHANOVA, Ye.A., red.; ZEM'KO, M.M., tekhn. red.

[Let's increase the production of pork] Uvelichim proizvodstvo svininy. Minsk, Gos.izd-vo sel'khoz.lit-ry BSSR,
1963. 83 p.
(White Russia--Swine)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

VAGITASHEV, V. I.

"Additional Data on the Surgical Treatment and Prognosis of Patients with
Pain Caused by the Peripheral Nerves. Method for Selecting and Operating on
Peripheral Incisions," Vest. Klinich., 2, No. 1, 1961. Printed, Central
Orthopedical Inst., Leningrad, 1962.

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1"

~~MASHANSKIY, F.I.~~, professor; KHARITONOVА, K.K.; GORBACHEVA, A.I.;
~~KALYAEVA, Ye.S.~~

Primary plastic surgery of the dura mater in experimental open
craniocerebral trauma. Vop.neirokhir. 20 no.2:39-42 Mr-Ap '56.

(MLRA 9:7)

1. Iz Novosibirskogo instituta vosstanovitel'noy khirurgii i
ortopedii

(DURA MATER, surg.

exper. in open brain inj.)

(BRAIN, wounds and inj.

exper., surg. of dura mater)

(WOUNDS AND INJURIES, exper.

brain, surg. of dura mater)

MASHANSKIY, F.I.

MASHANSKIY, F.I., professor

Symptom of aversion to sweet and fatty foods in cysticercosis of
the fourth ventricle. Vop. neirokhir. 20 no.6:41-43 N-D '56.

(MLRA 10:2)

1. Iz Novosibirskogo nauchno-issledovatel'skogo instituta ortopedii
i vosstanovitel'noy khirurgii.

(CEREBRAL VENTRICLES, diseases,

cysticercosis of fourth ventric. with aversion to sweet
& fatty foods(Rus))

(CYSTICERCOSIS, manifestations,

fourth ventric., aversion to sweet & fatty foods (Rus))

(APPETITE DISORDERS, etiology and pathogenesis,

aversion to sweet & fatty foods caused by cysticercosis
of fourth ventric (Rus))

MASHANSKIY, F.I.; RAZDOL'SKIY, I.Ya.; KOROTKEVICH, M.S.; TERPUGOV, Ye.A.

Modern diagnosis and treatment of brain tumors. Trudy Gos. nauch.-issl. psichonevr. inst. no.20:367-375 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psichonevrologicheskiy institut imeni V.M. Bekhtereva.
(BRAIN-TUMORS)

MASHANSKIY, F.I.; KAZANTSEVA, G.S.

Method based upon biological principles for the transplantation
of nerve trunks in extensive defects of them. Vop.psikh.i nevr.
nevr. no.7:447-451 '61. (MIRA 15:8)
(NERVES—TRANSPLANTATION)

MASHANSKIY, F.I.

Surgical treatment of hemorrhagic insultus. Trudy Gos. nauch.-issl. psichonevr. inst. no. 24: 53-60 '61. (MLA 15:5)

1. Neyrokhirurgicheskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo psichonevirologicheskogo instituta imeni Bekhtereva. (APOPLEXY)

MASHANSKIY, F.I.

Two cases of surgical treatment of patients with cerebral hemorrhages with good results. Vop. psikh. i nevr. no.9:
186-190 '62. (MIRA 17:1)

1. Neurokhirurgicheskoye otdeleniye Leningradskogo nauchno-issledovatel'skogo psichoneurologicheskogo instituta imeni V.M. Bekhtereva (dir. - B.A. Lebedev).

MASHANSKIY, F.I.; GAL'PERIN, M.D.

Diagnosis, course and surgical treatment of epidermoids
of the bones of the roof of the skull. Vop. psikh. i nevr.
no.9:292-300 '62. (MIRA 17:1)

1. Nauchno-issledovatel'skiy psichoneurologicheskiy insti-
tut imeni V.M. Bekhtereva (dir. - B.A. Lebedev).

MASHANSKIY, F.I.; SHOROKHOVA, T.M.

Effect of ganglionic blocking agents on the course of an operation and the postoperative condition of patients operated for brain tumors with convulsive syndromes. Vop. psikh. i nevr. no.9:358-364 '62. (MIRA 17:1)

1. Neurokhirurgicheskoye otdeleniye (zav. - prof. F.I. Mashanskiy) Leningradskogo nauchno-issledovatel'skogo psichoneurologicheskogo instituta imeni V.M. Bekhtereva (dir. - B.A. Lebedev).

MASHANSKIY, G.

For increased production of the assortment of children's articles.
Prem. keep. no. 10:17-20 O '55. (MIRA 9:4)
(Russia--Manufacturers)

ANDREYEV, V.P.; BUTKOVSKIY, N.I.; KOMAROV, I.A.; KUDINOV, V.S.;
MASHANSKIY, G.S.; MERKIN, R.M.; MERKULOV, V.A.;
ZEMLYANIKIN, S.A.; SOLOMIN, V.V.; SHOLOKHOV, Ye.I.;
PEREPELITSKAYA, A.G., red.; AVDEYEVA, V.A., tekhn. red.

[Toward the new achievements; the Russian Federation in
1963, concise handbook] K novym rubezham; Rossiiskaia
Federatsiia v 1963. godu. Kratkii spravochnik. Moskva,
Sovetskaia Rossia, 1963. 284 p. (MIRA 16:10)
(Russia--Economic policy--Handbooks, manuals, etc.)

MASHANSKIY, V. F.

"Investigation of the Ultrastructure of the Nuclei of the Sexual Elements After Treatment with Enzymes."

report submitted for the First Conference on the problems of Cyto and Histochemistry, Moscow, 19-21 Dec. 1964.

Laboratory of Microscopy of the Institute of Cytology, Academy of Sciences USSR, Leningrad.

VINEKOV, M.Ya.; MASHANSKIY, V.P.

Measuring the thickness of ultrathin sections by calculation.
TSfitologiya 2 no.1:93-95 Ja-F '60. (MIRA 13:5)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR,
Leningrad.
(MICROSCOPY--TECHNIQUES)

MASHANSKIY, V.J.; KOMISSARCHIK, Ya.Yu.; RYBIN, M.A.; VINYICHENKO, L.N.

Use of synthetic sapphire knife for ultrathin sections.
TSitologiya 2 no.3:376-379 My-Je '60. (MIRA 13:7)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR,
Leningrad.
(BIOLOGICAL LABORATORIES--EQUIPMENT AND SUPPLIES)

"APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1

...and so on.

"Intrastructural changes in the morphology of amebae in relation
under the influence of *Leishmania*."*

Report presented at the 15th Annual Meeting, and 1st International Conference
of Society of Protozoologists, Prague, 22-25 August

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R001032710015-1"

MASHANSKIY, V.F.; BEZNOSIKOV, B.O.

Method of preparing ultrathin sections from cell suspensions.
TSitologija 3 no. 1:117-119 Ja-F '61. (MIRA 14:2)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR,
Leningrad i TSitologicheskaya laboratoriya Leningradskogo
instituta perelivaniya krovi.
(MICRURY)

GOROSHCHENKO, Yu.L.; MASHANSKIY, V.F.

Comparative electron microscope study of the structure of spermatocyte
nucleoli in argasid ticks. TSitologija 3 no.4:389-395 Jl-Ag '61.
(MIR 14:8)

1. Laboratoriya morfologii kletki Instituta tsitologii AN SSSR,
Leningrad.
(CELL NUCLEI) (ELECTRON MICROSCOPY)

KARPAS, A.M.; MASHANSKIY, V.F.

"Normal and pathological submicroscopic structures of cells and tissues; their physiological and pathogenetic significance" by
A.Policard, C.Baud. Reviewed by A.M.Karpas, V.F.Mashanskii.
TSitologiya 3 no.4: 485-488 Jl-Ag '61. (MIRA 14:8)
(CYTOLOGY) (HISTOLOGY) (ELECTRON MICROSCOPY)
(POLICARD, A.) (BAUD, C.)

MASHANSKIY, V.F.

Effect of temperature on the ultrastructure of the mitochondria
in Infusoria. Tsvitologija 3 no.5:586-589 S-0 '61. (MIFIA 14:10)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR, Leningrad.
(TEMPERATURE—PHYSIOLOGICAL EFFECT) (INFUSORIA)
(MITOCHONDRIA)

KOMISSARCHIK, Ya.Yu.; MASHANSKIY, V.F.

Work experience with a standard domestic UMT-2 ultramicrotome. Izv.
AN SSSR.Ser.fiz. 25 no.6:764-765 Je '61. (MIRA 14:6)

1. Laboratoriya mikroskopii Instituta tsitologii Akademii nauk
SSSR.
(Microtome)

AKAD. N. V. A. V. V. A., kand. med. nauk (Leningrad)

Electron microscope and cells. i min i zizzn' 21 no.6:65-
66 Je '61. (Edu 14:7)

(Electron microscope)
(Cells)

MASHANSKIY, V. F.

"The Mechanism of Change in Ultrathin Mitochondrial Organization with Injury." pp. 47

Institute of Cytology AS USSR Laboratory of Microscopy

JPRS 06, 10

MASHANSKIY, V.F.

Mechanism of changes in the ultrafine organization of infusorian
mitochondria under the influence of injury. TSitologija 4 no.4:445-
449 Jl-Ag '62.
(MIRA 15:9)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR,
Leningrad.
(MITOCHONDRIA) (INFUSORIA)

MASHANSKIY, V.F.

Structure of the membranes of mitochondria. Tsitologiya 5 no.5:555-
558 S-0 '62. (MIRA 18:5)

1. Laboratoriya mikroskopii Instituta tsitologii AN SSSR, Leningrad.

MASHANSKIY, V.F.

Electron microscopic study of the macronuclei of certain
infusorians. Sbor. rab. Inst. tsit. no. 3:3-8 '63.
(MIRA 17:7)

1. Laboratoriya mikroskopii Instituta tsitologii AN
SSSR.

MASHANSKIY, V.F.; SAMOYLOVA, K.A.

Effect of ultraviolet irradiation on the ultrastructure of cells.
TSitologija 6 no.1:59-65 Ja-F '64. "Mira" 1964

1. Laboratoriya mikroskopii i laboratoriya kseromikroskopii
Instituta tsitologii AN SSSR, Leningrad.

• ... organelle organization of mitochondria. Tzitologija. 6 no.3:
1986 May-Je '84.

(MIRA 18:9)

• ... laboratoriya mikr skopii Instituta tsitologii AN SSSR, Leningrad.

BULYCHEV, A.S.; BASHANSKIY, V.F.

Localization of enzymes on mitochondrial membranes. TSitologiya.
6 no.3:312-318 My-Je '64. (MIHA 18:9)

1. Laboratoriya bickimii kletki i laboratoriya mikroskopii in-
stituta tsitologii AN SSSR, Leningrad.

TSVILENEVA, V.A.; MASHANSKIY, V.F.

Structure of the cuticle in some ixodid ticks. Izv. AN SSSR.
(MIRA 18:9)
Ser. biol. no.5:787-792 S.-O '65.

I. Institut zoologii i parazitologii AN Tadzhikskoy SSR,
Dushanbe.

KOMKOVA, A.I.; MASHANSKIY, V.F.; ROGOZKIN, V.A.

Use of phosphoprotein phosphatase in discovering phospho-
proteins in the ultrastructures of cell organoids.
TSitologija 7 no.5:679-681 S-0 '65. MIRA 12:12

1. Laboratoriya khimii belka Leningradskogo universiteta,
laboratoriya mikroskopii Instituta tsitologii AN SSSR i
laboratoriya biokhimii Nauchno-issledovatel'skogo instituta
fizicheskoy kul'tury, Leningrad. Submitted May 24, 1964.

VAYSMAN, I.Sh.; IONTOV, A.S.; MATIYENKO, B.T.; MASHANSKIY, V.F.

Third Regional European Conference on Electron Microscopy. Publ.-
September, 1964. in Prague. Arkh. anat., gist. i embr. 4^o no. 7:120-
122 Jl '65. (MIRA 18:10)

PETROV, A.D.; MIKHOV, V.P.; MASHANTSHEV, D.

Dehydrochlorination of di- and monochloroalkylsilane chlorides. Rearrange-
ment of 1,2-bis-(trichlorosilyl)chloroethane during the dehydrochlorina-
tion with aluminum chloride. Izv.AN SSSR Otd.khim.nauk no.5:550-558 My
'56. (MIRA 9:9)

1.Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.
(Hydrochloric acid) (Silane) (Ethane)

ZHDANOV, V.M.; MEL'IKOVA, L.A.; KOLODOVA, I.A.; BALANDIN, I.G.; PETERSON,
G.P.; MASHARINA, L.

Suppression of the synthesis of smallpox vaccine virus by
histone. Dokl. AN SSSR 165 no.5:1182-1183 D '65.
(MIRA 19:1)

1. Institut virusiologii im. D.I. Ivanovskogo AMN SSSR.
2. Deystvitel'nyy chлен AMN SSSR (for Zhdanov). Submitted
August 6, 1965.

LAZAREVA, A.P.; MASHARINA, L.A.

Stresses in the earthquake centers of the arctic seismic belt.
Izv. AN SSSR. Fiz. zem. no.2:5-10 '65. (MIRA 18:6)

1. Institut fiziki Zemli AN SSSR.

VANYUSHIN, B. F.; MASHARINA, L. V.; BELOZERSKIY, A. N., akademik

Pyrimidine distribution in deoxyribonucleic acids. Dokl.
AN SSSR 147 no.4:958-961 B '62. (MIRA 16:1)

1. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova.

(Nucleic acids) (Pyrimidines)

MASHARIPOV, N.P.

Influence of water supply from wells on the incidence of intestinal infections in small sections of Tashkent. Med. zhur. Uzb. no.4:34-37 Ap '61.
(MIRA 14:5)

1. Iz Uzbekskogo nauchno-issledovatel'skogo instituta sanitarii, gigiyeny i profzabolevaniy (direktor - dotsent A.Z.Zakhidov).
(TASHKENT—INTESTINES—DISEASES)
(WATER—ANALYSIS)

AMINOVA, R.Kh., kand. ist. nauk; TETENEVA, L.G., kand. ist. nauk;
ALIMOV, I.A.; DMITRIYEV, G.L.; DZHAMALOV, C.B., doktor
ekon. nauk, redaktor ; DZHURAYEVA, T., kand. ist. nauk,
red.; ATFENYUK, S.Ya., red ; DANILOV, V.P., glav. red.;
BELOV, G.A., red.; GRIGORYAN, L.L., red.; IBRAGIMOV, Z.I.,
red.; IVNITSKIY, N.A., red.; IL'YASOV, S.I., red.; KAKABAYEV,
S.D., red.; KAMENSKAYA, N.V., red.; KRAYEV, M.A., red.;
KULIYEV, O.K., red ; MAKHARADZE, N.B., red.; OBICHKIN, G.D.,
red.; PLESHAKOV, S.T., red.; RADZHABOV, Z.I., red.; SELEZNEV,
M.S., red.; TURSUNBAYEV, A.B., red.; FEDOROV, A.G., red.;
SHEPELEVNA, T.V., red.; PATLAKH, B., red.; MASHARIPOVA, D.,
red.; BULATOVA, R., red.; GOR'KOVAYA, Z.P., tekhn. red.;
KARABAYEVA, Kh.U., tekhn. red.

[Socialist reorganization of agriculture in Uzbekistan]
Sotsialisticheskoe pereustroistvo sel'skogo khoziaistva v Uz-
bekistane, 1917-1926 gg Pod red G.B.Dzhamalova. Tashkent,
Izd-vo Akad. nauk UzSSR. Vol.1. 1962. 792 p. (MIRA 16:5)

I. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut istorii i
arkheologii.

(Uzbekistan--Agriculture)

83347

S/139/60/000/004/003/033
E032/E514*244500*AUTHORS: Rezanov, A. I., Rybin, I. A. and Masharov, S. I.TITLE: Application of the Perfect Differential Method to the
Solution of Quantum Mechanical ProblemsPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,
1960, No.4, pp.40-45TEXT: The perfect differential method put forward by
Maurin (Ref.1) consists in the following: the solution of

$$\hat{L}\psi(x) = 0 \quad (1)$$

where \hat{L} is a linear differential operator, is written down
in the form

$$\psi(x) = \int_{k_1}^{k_2} \alpha(k) e^{\int_k^x F(k,x) dk}, \quad (2)$$

where $\alpha(k)$ and $F(k,x)$ are the required functions. Substitution
of Eq.(2) into Eq.(1) gives

$$\hat{L}\psi(x) = \int_{k_1}^{k_2} \alpha(k) \hat{L} \left(\frac{\partial F}{\partial x} \right) e^{\int_k^x F(k,x) dk}, \quad (3)$$

Card 1/4

83347

S/139/60/000/004/003/033

E032/E514

Application of the Perfect Differential Method to the Solution of
Quantum Mechanical Problems

where \hat{L} is a certain linear operation on $\frac{\partial F}{\partial x}$. The order of this operation is lower by one than the order of L . Next, the following condition is introduced

$$\alpha(k) \hat{L} \left(\frac{\partial F}{\partial x} \right) e^{F(k,x)} = \frac{\partial}{\partial k} \left\{ \alpha(k) e^{F(k,x)} \right\}, \quad (4)$$

and when this is substituted into Eq. (3) the final result is

$$\hat{L} \psi(x) = \alpha(k) e^{\frac{F(k,x)}{k_2}} \quad (5)$$

If k_1 and k_2 are chosen so that the following equation is satisfied

$$\alpha(k_2) e^{\frac{F(k_2,x)}{k_2}} = \alpha(k_1) e^{\frac{F(k_1,x)}{k_1}} \quad (6)$$

then the equation $\hat{L}\psi = 0$ will be satisfied by the solution given by Eq. (2) with the above limits. The function αe is

Card 2/4